

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A capacity type sensor comprising:
 - a first electrode;
 - a second electrode which is disposed opposedly to said first electrode;
 - a guard electrode which is disposed opposedly to said first electrode;
 - a potential equalizer to make the potential difference between said first electrode and said guard electrode close to zero; and
 - a capacity type sensor detector to detect an impedance change between said first electrode and said second electrode, wherein said guard electrode is disposed between said first electrode and said second electrode, and wherein
the potential equalizer is a gain circuit arranged between the guard electrode and the first electrode, the capacity type sensor detector is arranged between the gain circuit and the first electrode, and an output terminal is provided between the gain circuit and the capacity type sensor detector.

2. (Cancelled)

3. (Previously Presented) The capacity type sensor according to claim 1 further comprising a first supporting member to fix said guard electrode and said first electrode.

4. (Previously Presented) The capacity type sensor according to claim 1 further comprising a second supporting member to fix said second electrode and said guard electrode.

5. (Previously Presented) The capacity type sensor according to claim 1 further comprising a substrate on which either one of said first electrode or said second electrode, and said guard electrode are formed, wherein said guard electrode is made out of semiconductor layer which has different conductivity type from said first electrode or said second electrode.

6. (Previously Presented) The capacity type sensor according to claim 1, wherein said first electrode or said second electrode includes a plate type thin film portion which is constituted by a depression at the central part of a lower side of said first or second electrode, and said thin film portion is a vibrating electrode.

7. (Previously Presented) The capacity type sensor according to claim 6, wherein said first electrode or said second electrode including said thin film portion is a vibrating electrode.

8. (Previously Presented) The capacity type sensor according to claim 1, wherein at least one of said first electrode and said second electrode is a vibrating electrode.

9. (Previously Presented) The capacity type sensor according to claim 1, wherein both of said first electrode and said second electrode are fixed electrodes.

10. (Currently Amended) A capacity type sensor comprising:

a first electrode and a second electrode which are oppositely disposed each other and an area of either one of said first and second electrode is made narrower than another;

a first supporting member which is disposed outside of an outer periphery of one of said electrodes with a narrower area to support another one of said electrodes with a wider area;

a substrate, wherein said first supporting member supports said electrode with the wider area on said substrate, and either one of said first or second electrodes is disposed on said substrate;

a second supporting member disposed between said substrate and either one of said electrodes which is disposed on said substrate;

a guard electrode which is disposed between said first supporting member and said second supporting member;

a potential equalizer to make the potential difference between said first electrode and said guard electrode close to zero; and

a capacity type sensor detector to detect an impedance change between said first electrode and said second electrode, and wherein

the potential equalizer is a gain circuit arranged between the guard electrode and the first electrode, the capacity type sensor detector is arranged between the gain circuit

and the first electrode, and an output terminal is provided between the gain circuit and the capacity type sensor detector.

11-12. (Cancelled)

13. (Previously Presented) The capacity type sensor according to claim 10, wherein an opening portion is formed at the central part of said substrate, and said electrode formed on said second supporting member is a vibrating electrode.

14-17. (Cancelled)

18. (Currently Amended) A capacity type sensor comprising:

- a first electrode with wider area;
- a second electrode with narrower area which is disposed on said first electrode with the wider area;
- a third supporting member which is formed on said first electrode with the wider area;
- a fourth supporting member which is supported by said third supporting member, wherein said second electrode with the narrower area is formed on said fourth supporting member;
- a guard electrode which is disposed between said third supporting member and said fourth supporting member;

a potential equalizer to make the potential difference between said first electrode and said guard electrode close to zero; and

a capacity type sensor detector to detect an impedance change between said first electrode and said second electrode, and wherein

the potential equalizer is a gain circuit arranged between the guard electrode and the first electrode, the capacity type sensor detector is arranged between the gain circuit and the first electrode, and an output terminal is provided between the gain circuit and the capacity type sensor detector.

19. (Cancelled)

20. (Previously Presented) The capacity type sensor of claim 1, wherein the second electrode is formed out of a substantially square single crystal silicon substrate.

21. (Previously Presented) The capacity type sensor of claim 1, wherein the guard electrode is formed out of a polycrystalline silicon film.

22. (Previously Presented) The capacity type sensor of claim 1, wherein the first electrode is formed in a rhombic shape.

23. (Previously Presented) The capacity type sensor of claim 1, wherein the potential equalizer is an analog buffer arranged between the guard electrode and the first electrode.

24. (Canceled)

25. (Previously Presented) The capacity type sensor of claim 3, wherein the first supporting member is disposed between the guard electrode and the first electrode.

26. (Previously Presented) The capacity type sensor of claim 4, wherein the second supporting member is ring shaped and is disposed between the guard electrode and the second electrode.

27. (Previously Presented) The capacity type sensor of claim 4, wherein the second supporting member is made out of silicon oxide film.

28. (Previously Presented) The capacity type sensor of claim 6, wherein the depression has a trapezoidal shape.